CLAIMS

1 What is claimed is:

1   1.   A method for profiling an executable hardware model, comprising the steps of:

2   (a)   selecting a plurality of profiling functions of a profiling process;

3   (b)   preprocessing an application having application functions targeted for

4   implementation in reconfigurable logic for inserting calls to the profiling

5   functions;

6   (c)   executing the application; and

7   (d)   generating a profile based on the profiling functions called during execution of

8   the application.

1   2.   A method as recited in claim 1, wherein the profile includes at least one of a

2   time taken by each application function, a number of calls to each application

3   function, and a call graph for illustrating calls between functions.

1   3.   A method as recited in claim 1, wherein the profile includes at least one of

2   dynamic control flow and memory transfers.

1   4.   A method as recited in claim 1, wherein the application is permitted to

2   interoperate with an arbitrary external library.

1   5.   A method as recited in claim 1, wherein the application is written in a C

2   programming language.

1   6.   A computer program product for profiling an executable hardware model,

2   comprising the steps of:

3   (a)   computer code for selecting a plurality of profiling functions of a profiling

4   process;

5   (b)   computer code for preprocessing an application having application functions

6   targeted for implementation in reconfigurable logic for inserting calls to the

7   profiling functions;

8   (c)   computer code for executing the application; and

9   (d)   computer code for generating a profile based on the profiling functions called

10   during execution of the application.

1   7.   A computer program product as recited in claim 6, wherein the profile includes

2   at least one of a time taken by each application function, a number of calls to

3   each application function, and a call graph for illustrating calls between

4   functions.

1   8.   A computer program product as recited in claim 6, wherein the profile includes

2   at least one of dynamic control flow and memory transfers.

1   9.   A computer program product as recited in claim 6, wherein the application is

2   permitted to interoperate with an arbitrary external library.

1   10.   A computer program product as recited in claim 6, wherein the application is

2   written in a C programming language.

1   11.   A system for profiling an executable hardware model, comprising the steps of:

2   (a)   logic for selecting a plurality of profiling functions of a profiling process;

3   (b)   logic for preprocessing an application having application functions targeted for

4   implementation in reconfigurable logic for inserting calls to the profiling

5   functions;

6   (c)   logic for executing the application; and

7   (d)   logic for generating a profile based on the profiling functions called during

8   execution of the application.

1   12.   A system as recited in claim 11, wherein the profile includes at least one of a

2   time taken by each application function, a number of calls to each application

3   function, and a call graph for illustrating calls between functions.

1   13.   A system as recited in claim 11, wherein the profile includes at least one of

2   dynamic control flow and memory transfers.

1   14.   A system as recited in claim 11, wherein the application is permitted to

2   interoperate with an arbitrary external library.

1   15.   A system as recited in claim 11, wherein the application is written in a C

2   programming language.